



IFWO

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/814,850

DATE: 09/28/2004

TIME: 09:53:54

Input Set : A:\U015118-6.ST25.txt

Output Set: N:\CRF4\09282004\J814850.raw

3 <110> APPLICANT: Rajamohan, Govindan  
 4 Dahiya, Monika  
 5 Pathania, Ranjana  
 6 Dikshit, Kanaka Lata  
 8 <120> TITLE OF INVENTION: A METHOD FOR OXYGEN REGULATED PRODUCTION OF RECOMBINANT  
 9 STAPHYLOKINASE  
 11 <130> FILE REFERENCE: U 015118-6  
 13 <140> CURRENT APPLICATION NUMBER: 10/814,850  
 14 <141> CURRENT FILING DATE: 2004-03-31  
 16 <150> PRIOR APPLICATION NUMBER: US 60/459,439  
 17 <151> PRIOR FILING DATE: 2003-04-01  
 19 <160> NUMBER OF SEQ ID NOS: 14  
 21 <170> SOFTWARE: PatentIn version 3.3  
 23 <210> SEQ ID NO: 1  
 24 <211> LENGTH: 161  
 25 <212> TYPE: DNA  
 26 <213> ORGANISM: Artificial Sequence  
 28 <220> FEATURE:  
 29 <223> OTHER INFORMATION: A nucleotide sequence of expression cassette OXY-1  
 31 <400> SEQUENCE: 1  
 32 gatcaagctt atcatcgata agcttacagg acgctgggtt aaaagtattt gagttttgat 60  
 34 gtggattaag ttttgagagg tcaataagat tataatatgt gatgcttcac aattctgatg 120  
 36 tatggcaaaa ccataataat gaacttaagg aagacctcat g 161  
 39 <210> SEQ ID NO: 2  
 40 <211> LENGTH: 582  
 41 <212> TYPE: DNA  
 42 <213> ORGANISM: Artificial Sequence  
 44 <220> FEATURE:  
 45 <223> OTHER INFORMATION: A modified staphylokinas SAK-2 gene  
 47 <400> SEQUENCE: 2  
 48 gaacttaagc atatgaaagg aaaatataaa aagggcgatg acgcgagtta ttttgaacca 60  
 50 acaggcccgt atttgatggt aaatgtgact ggagttgatg gtaaaggaaa tgaattgcta 120  
 52 tccccctcatt atgtcgagtt tcctattaaa cctgggacta cacttacaaa agaaaaaatt 180  
 54 gaatactatg tcgaatgggc attagatgcg acagcatata aagagtttag agtagttgaa 240  
 56 ttagatccaa gcgcaaagat cgaagtcact tattatgata agaataagaa aaaagaagaa 300  
 58 acgaagtctt tccctataac agaaaaaggt tttgttgatc cagatttatc agagcatatt 360  
 60 aaaaaccctg gattcaactt aattacaaag gttgttatag aaaagaaata aaacaaaata 420  
 62 gttgtttatt atagaaagta atgtcttgat tgaatatgtg tagtgaaatt atctttcatc 480  
 64 aaattctcat tcatgcacga atggttctgc cccacctaat cagatattac gtgacttatg 540  
 66 gggagaaatc agtttgata aaagtggagg atccagtagc cg 582  
 69 <210> SEQ ID NO: 3  
 70 <211> LENGTH: 363  
 71 <212> TYPE: PRT

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72 &lt;213&gt; ORGANISM: Artificial Sequence

74 &lt;220&gt; FEATURE:

75 &lt;223&gt; OTHER INFORMATION: A peptide sequence of modified staphylokinas SAK-2 gene

77 &lt;400&gt; SEQUENCE: 3

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79 Glu Ala Leu Ala Gly Leu Tyr Ala Leu Ala Thr His Arg Leu Tyr Ser
80 1          5          10          15
83 Leu Tyr Ser Gly Leu Tyr Ala Ser Pro Ala Ser Pro Ala Leu Ala Ser
84          20          25          30
87 Glu Arg Thr Tyr Arg Pro His Glu Gly Leu Pro Arg Thr His Arg Gly
88          35          40          45
91 Leu Tyr Pro Arg Thr Tyr Arg Leu Glu Met Glu Thr Val Ala Leu Ala
92          50          55          60
95 Ser Asn Val Ala Leu Thr His Arg Gly Leu Tyr Val Ala Leu Ala Ser
96 65          70          75          80
99 Pro Gly Leu Tyr Leu Tyr Ser Gly Leu Tyr Ala Ser Asn Gly Leu Leu
100          85          90          95
103 Glu Leu Glu Ser Glu Arg Pro Arg His Ile Ser Thr Tyr Arg Val Ala
104          100          105          110
107 Leu Gly Leu Pro His Glu Pro Arg Ile Leu Glu Leu Tyr Ser Pro Arg
108          115          120          125
111 Gly Leu Tyr Thr His Arg Thr His Arg Leu Glu Thr His Arg Leu Tyr
112          130          135          140
115 Ser Gly Leu Leu Tyr Ser Ile Leu Glu Gly Leu Thr Tyr Arg Thr Tyr
116 145          150          155          160
119 Arg Val Ala Leu Gly Leu Thr Arg Pro Ala Leu Ala Leu Glu Ala Ser
120          165          170          175
123 Pro Ala Leu Ala Thr His Arg Ala Leu Ala Thr Tyr Arg Leu Tyr Ser
124          180          185          190
127 Gly Leu Pro His Glu Ala Arg Gly Val Ala Leu Val Ala Leu Gly Leu
128          195          200          205
131 Leu Glu Ala Leu Ala Pro Arg Ser Glu Arg Ala Leu Ala Leu Tyr Ser
132          210          215          220
135 Ile Leu Glu Gly Leu Val Ala Leu Thr His Arg Thr Tyr Arg Thr Tyr
136 225          230          235          240
139 Arg Ala Ser Pro Leu Tyr Ser Ala Ser Asn Leu Tyr Ser Leu Tyr Ser
140          245          250          255
143 Gly Leu Gly Leu Thr His Arg Thr His Arg Leu Tyr Ser Ser Glu Arg
144          260          265          270
147 Pro His Glu Pro Arg Ile Leu Glu Thr His Arg Gly Leu Leu Tyr Ser
148          275          280          285
151 Gly Leu Tyr Pro His Glu Val Ala Leu Val Ala Leu Pro Arg Ala Ser
152          290          295          300
155 Pro Leu Glu Ser Glu Arg Gly Leu His Ile Ser Ile Leu Glu Leu Tyr
156 305          310          315          320
159 Ser Ala Ser Asn Pro Arg Gly Leu Tyr Pro His Glu Ala Ser Asn Leu
160          325          330          335
163 Glu Ile Leu Glu Thr His Arg Leu Tyr Ser Val Ala Leu Val Ala Leu
164          340          345          350
167 Ile Leu Glu Gly Leu Leu Tyr Ser Leu Tyr Ser

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168          355          360
171 <210> SEQ ID NO: 4
172 <211> LENGTH: 37
173 <212> TYPE: DNA
174 <213> ORGANISM: Artificial Sequence
176 <220> FEATURE:
177 <223> OTHER INFORMATION: A primer SAK-1 for amplification
179 <400> SEQUENCE: 4
180 gattgtagcc atatgtcaag ttcattcgac aaaggaa           37
183 <210> SEQ ID NO: 5
184 <211> LENGTH: 37
185 <212> TYPE: DNA
186 <213> ORGANISM: Artificial Sequence
188 <220> FEATURE:
189 <223> OTHER INFORMATION: An oligonucleotide primer SAK-2
191 <400> SEQUENCE: 5
192 cggctactgg atcctccact tttatccaaa ctgattt           37
195 <210> SEQ ID NO: 6
196 <211> LENGTH: 45
197 <212> TYPE: DNA
198 <213> ORGANISM: Artificial Sequence
200 <220> FEATURE:
201 <223> OTHER INFORMATION: An oligonucleotide primer SAK-3
203 <400> SEQUENCE: 6
204 gaacttaagg aagatataca tatgtcaagt tcattcgaca aagga           45
207 <210> SEQ ID NO: 7
208 <211> LENGTH: 36
209 <212> TYPE: DNA
210 <213> ORGANISM: Artificial Sequence
212 <220> FEATURE:
213 <223> OTHER INFORMATION: An oligonucleotide primer SAK-4
215 <400> SEQUENCE: 7
216 gaacttaagc atatggctgg agcttataaa aaggggc           36
219 <210> SEQ ID NO: 8
220 <211> LENGTH: 411
221 <212> TYPE: DNA
222 <213> ORGANISM: Staphylococcus aureu
224 <400> SEQUENCE: 8
225 tcaagttcat tcgacaaagg aaaatataaa aagggcgatg acgcgagtta ttttgaacca           60
227 acaggcccggt atttgatggt aaatgtgact ggagttgatg gtaaaggaaa tgaattgcta           120
229 tcccctcatt atgtcgagtt tcctattaaa cctgggacta cacttacaaa agaaaaaatt           180
231 gaatactatg tcgaatgggc attagatgcg acagcatata aagagttag agtagttgaa           240
233 ttagatccaa gcgcaaagat cgaagtcact tattatgata agaataagaa aaaagaagaa           300
235 acgaagtctt tccctataac agaaaaaggt tttgtgtgcc cagatttatc agagcatatt           360
237 aaaaaccctg gattcaactt aattacaaag gttgttatag aaaagaaata a           411
240 <210> SEQ ID NO: 9
241 <211> LENGTH: 606
242 <212> TYPE: DNA
243 <213> ORGANISM: Staphylococcus aureus

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245 <400> SEQUENCE: 9
246 gaacttaagg aagatatata tatgtcaagt tcattcgaca aaggaaaata taaaaagggc 60
248 gatgacgcga gttattttga accaacaggc ccgtatttga tggtaaagt gactggagtt 120
250 gatggtaaag gaaatgaatt gctatccct cattatgtcg agtttcctat taaacctggg 180
252 actacactta caaaagaaaa aattgaatac tatgtcgaat gggcattaga tgcgacagca 240
254 tataaagagt ttagagtagt tgaattagat ccaagcgcaa agatcgaagt cacttattat 300
256 gataagaata agaaaaaaga agaaacgaag tctttcccta taacagaaaa aggttttgtt 360
258 gtcccagatt tatcagagca tattaataaac cctggattca acttaattac aaaggttgtt 420
260 atagaaaaga aataaaacaa aatagttgtt tattatagaa agtaatgtct tgattgaata 480
262 tgtgtagtga aattatcttt catcaaattc tcattcatgc acgaatggtt ctgccccacc 540
264 taatcagata ttacgtgact tatggggaga aatcagtttg gataaaagtg gaggatccag 600
266 tagccg 606
269 <210> SEQ ID NO: 10
270 <211> LENGTH: 377
271 <212> TYPE: PRT
272 <213> ORGANISM: Staphylococcus aureus
274 <400> SEQUENCE: 10
276 Ser Glu Arg Ser Glu Arg Pro His Glu Ala Ser Pro Leu
277 1 5 10 15
280 Tyr Ser Gly Leu Tyr Leu Tyr Ser Thr His Arg Leu Tyr Ser Leu Tyr
281 20 25 30
284 Ser Gly Leu Tyr Ala Ser Pro Ala Ser Pro Ala Leu Ala Ser Glu Arg
285 35 40 45
288 Thr Tyr Arg Pro His Glu Gly Leu Pro Arg Thr His Arg Gly Leu Tyr
289 50 55 60
292 Pro Arg Thr Tyr Arg Leu Glu Met Glu Thr Val Ala Leu Ala Ser Asn
293 65 70 75 80
296 Val Ala Leu Thr His Arg Gly Leu Tyr Val Ala Leu Ala Ser Pro Gly
297 85 90 95
300 Leu Tyr Leu Tyr Ser Gly Leu Tyr Ala Ser Asn Gly Leu Leu Glu Leu
301 100 105 110
304 Glu Ser Glu Arg Pro Arg His Ile Ser Thr Tyr Arg Val Ala Leu Gly
305 115 120 125
308 Leu Pro His Glu Pro Arg Ile Leu Glu Leu Tyr Ser Pro Arg Gly Leu
309 130 135 140
312 Tyr Thr His Arg Thr His Arg Leu Glu Thr His Arg Leu Tyr Ser Gly
313 145 150 155 160
316 Leu Leu Tyr Ser Ile Leu Glu Gly Leu Thr Tyr Arg Thr Tyr Arg Val
317 165 170 175
320 Ala Leu Gly Leu Thr Arg Pro Ala Leu Ala Leu Glu Ala Ser Pro Ala
321 180 185 190
324 Leu Ala Thr His Arg Ala Leu Ala Thr Tyr Arg Leu Tyr Ser Gly Leu
325 195 200 205
328 Pro His Glu Ala Arg Gly Val Ala Leu Val Ala Leu Gly Leu Leu Glu
329 210 215 220
332 Ala Leu Ala Pro Arg Ser Glu Arg Ala Leu Ala Leu Tyr Ser Ile Leu
333 225 230 235 240
336 Glu Gly Leu Val Ala Leu Thr His Arg Thr Tyr Arg Thr Tyr Arg Ala
337 245 250 255

```

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340 Ser Pro Leu Tyr Ser Ala Ser Asn Leu Tyr Ser Leu Tyr Ser Gly Leu
341           260           265           270
344 Gly Leu Thr His Arg Thr His Arg Leu Tyr Ser Ser Glu Arg Pro His
345           275           280           285
348 Glu Pro Arg Ile Leu Glu Thr His Arg Gly Leu Leu Tyr Ser Gly Leu
349           290           295           300
352 Tyr Pro His Glu Val Ala Leu Val Ala Leu Pro Arg Ala Ser Pro Leu
353 305           310           315           320
356 Glu Ser Glu Arg Gly Leu His Ile Ser Ile Leu Glu Leu Tyr Ser Ala
357           325           330           335
360 Ser Asn Pro Arg Gly Leu Tyr Pro His Glu Ala Ser Asn Leu Glu Ile
361           340           345           350
364 Leu Glu Thr His Arg Leu Tyr Ser Val Ala Leu Val Ala Leu Ile Leu
365           355           360           365
368 Glu Gly Leu Leu Tyr Ser Leu Tyr Ser
369           370           375

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372 &lt;210&gt; SEQ ID NO: 11

373 &lt;211&gt; LENGTH: 50

374 &lt;212&gt; TYPE: DNA

375 &lt;213&gt; ORGANISM: Artificial Sequence

377 &lt;220&gt; FEATURE:

378 &lt;223&gt; OTHER INFORMATION: An oligonucleotide PEC-2 for preparing protein expression

379 cassette

381 &lt;400&gt; SEQUENCE: 11

382 gatcaagctt atcatcgata agcttacagg acgctgggtt aaaagtattt

50

385 &lt;210&gt; SEQ ID NO: 12

386 &lt;211&gt; LENGTH: 55

387 &lt;212&gt; TYPE: DNA

388 &lt;213&gt; ORGANISM: Artificial Sequence

390 &lt;220&gt; FEATURE:

391 &lt;223&gt; OTHER INFORMATION: An oligonucleotide PEC-2 for preparing protein expression

392 cassette

394 &lt;400&gt; SEQUENCE: 12

395 atcttattga cctctcaaaa cttaatccac atcaaaactc aaatactttt aaccc

55

398 &lt;210&gt; SEQ ID NO: 13

399 &lt;211&gt; LENGTH: 55

400 &lt;212&gt; TYPE: DNA

401 &lt;213&gt; ORGANISM: Artificial Sequence

403 &lt;220&gt; FEATURE:

404 &lt;223&gt; OTHER INFORMATION: An oligonucleotide PEC-3 for preparing protein expression

405 cassette

407 &lt;400&gt; SEQUENCE: 13

408 agaggtcaat aagattataa tatgtgatgc ttcacaattc tgatgtatgg caaaa

55

411 &lt;210&gt; SEQ ID NO: 14

412 &lt;211&gt; LENGTH: 50

413 &lt;212&gt; TYPE: DNA

414 &lt;213&gt; ORGANISM: Artificial Sequence

416 &lt;220&gt; FEATURE:

417 &lt;223&gt; OTHER INFORMATION: An oligonucleotide PEC-4 for preparing protein expression

VERIFICATION SUMMARY

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